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The Elementary School Student's Achievements in *Usada Bali* 'Balinese Traditional Medicine' Lexicon (Gender Study and Language Revitalization)

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ABSTRACT

Usada Bali is a traditional Balinese healing practice that uses natural materials like plants for medicine. This practice is recorded in Balinese script on lontar leaves. Modern technology and synthetic medicine have reduced the use of some traditional medicinal plants and caused a language shift from Balinese to Indonesian, even for traditional medicine terminology. Now, these materials are often written in Indonesian to describe their usage. This study aims to analyze the language strategies regarding the *Usada Bali* lexicon applied by the student's parents at elementary school at Denpasar and Klungkung Regency. It examines students' proficiency in traditional medicine types, treatment techniques, and related medical problems, and factors influencing their understanding. Using qualitative methods and surveys, the study found that most parents (66.3% in Denpasar and 83.3% in Klungkung) use Strategy 7-a language strategy involving Balinese Language with their children, the same as that employed in the neighborhood domain. As a result, 59.2%–81.9% of students understand the traditional medicine lexicons. The study concludes that besides Strategy 7, other factors such as family demographics and the presence of multiple generations play significant roles in maintaining the Balinese language and *Usada Bali* lexicons, as part of oral traditions and Balinese Culture, which are crucial for preserving Balinese cultural identity.

Keywords: Language strategies; Medical types; Treatment techniques; Medical problems; *Usada Bali*

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1. Introduction

Large-scale conversion of agricultural land into tourism support facilities in Bali and changes in the linguistic situation into a multilingual society not only lead to changes in the biotic and abiotic environment but also the reduction or extinction of some of the medicinal plants but also have an impact on shifting the use of Balinese language (hereafter B.L.) into Indonesian language (hereafter I.L.) which affects the understanding and/or not understanding the B.L., especially those *Usada Bali* lexicons. As one of the tourist destinations in Indonesia, Bali's language consists of B.L. as a local language, I.L. as an official and national language, and English as a foreign language.

Sustainable and environmentally sound development needs to be implemented to create an environmentally-based national economy that is as friendly as language, which means maintaining culture, including language, environment, and the social environment of the speakers themselves, and preserving cultural values packaged. In Balinese ideology, the packaging of the relationship is called TRI HITA KARANA, namely the relationship between humans and the environment, human relations with humans, and human relations with God (Atmaja, 2008). *Usada* is a B.L. lexicon that refers to a method that uses natural ingredients as medicine, which is obtained from fresh parts of herbs, such as leaves, stems, roots, bulbs, flowers, and fruits. *Usada Bali* system consists of medicinal ingredients, symptoms of illness, how to perform treatment, and the name of the plant or the name of the medicinal tree listed in *Taru Pramana Lontar* [manuscript]. Its ingredients tend to be obtained from family medicinal plants, carried out by someone who has studied the system or learns from generation to generation and based on experience from the daily environment. Eiseman (2001).

Usada Bali is not only a science of traditional medicine system in the form of knowledge about medicine that is passed down orally to the next generation, but it is also one of the cultural elements as a result of the cultivation of Balinese people. Therefore, *Usada Bali* is an oral tradition belonging to Balinese society and culture, and it is recorded on lontar, which can only be understood by those who can read Balinese script. However, now it has been copied into Latin script.

Usada Bali is a complex system that is not only a Balinese cultural product but also an individual idea that is socially inherited between generations, as well as a cognitive system as proposed by Goodenough's theory as cited in Keesing (1997). As a cognitive system, *Usada Bali* consists of (i) Knowledge about traditional medicine systems that are socially inherited and considered Balinese culture. *Usada Bali,* in its development, has adapted to modern culture but still maintains its functional values. (ii) It believes in the knowledge of traditional medicine passed down from generation to generation. For this reason, the traditional medicine system can be believed to benefit the Balinese. In this case, medicinal plants, as part of the ecological system, have a relationship with humans and are mutually dependent; (iii) Values, in that of the traditional medicine knowledge system, *Usada Bali* indeed contains cultural values and sacred teachings that need to be passed on to the next generation.

Language and cultural contact in heterogeneous societies cause people to be bilingual, even multilingual. Communication involves more than one language, so language choice occurs. The consequence of language selection and use is language maintenance or shift. The condition of maintaining or shifting a language is the result of language choice in the long term or at least three generations. It is a collective phenomenon that all speech community members engage in. A language is said to survive if it is still passed on from generation to generation.

Conversely, a language shift or the language is not used anymore if its speakers switch to another language to communicate. Various linguistic changes, such as reduction and simplification, follow language shifts. Language shift and maintenance also depend on the speakers' attitude towards their language choice. If the speaker maintains their language to speak, they are considered to have a positive attitude toward their language. This attitude is called separation or divergence, namely separation from other groups. Suppose the speakers switch and choose another language that suits the listener's needs. In that case, they express a unifying or convergence attitude (Holmes, 2013).

Fishman (1972) introduces domains in the choice and use of language, namely the domains of family, friendship, religion, education, and employment, which are based on the constellation domain, a term to refer to certain situations that influence language choice, including topics, participants, and settings, as cited in Holmes (2013). According to Fasold (1987), in a multilingual society there will be both active and

passive bilingual citizens. It is because many languages are used in such a society. Then, they will choose a language that functions well according to the context of the situation. Besides being used to communicate, language is also used to maintain and express social relationships with other people and express the social identity of its speaker.

The attitude toward language use depends on the parents' strategy for their children. Romaine (1995) introduces six strategies for parents to transfer language to their children, namely: (i) Strategy 1. One Person, One Language. Both mother and father use their B1 to their children. Parents do not have the same B1. In the neighborhood domain, one of the parent's languages is dominant. Each parent consistently speaks a different language to the child. (ii) Strategy 2. Non-Dominant Home Language/One Language, One Enviroment. Parents do not have the same B1. One of the parents' languages is dominant in the neighborhood. Both parents do not use the dominant language with their children. One language is spoken at home, while another is used in the outside environment. (iii) Strategy 3. Non-dominant Home Language Without Community Support. Home language is not the same as neighborhood language. Both father and mother have the same B1 and use their B1 to their children. The dominant language in the environment is not the same as the parents' languages. Both parents speak the minority language. (iv) Strategy 4. Double Non-Dominan Languages Without Community Support. Parents do not have the same B1. Both mother and father use their B1 to their children. It means that the two home languages do not have neighborhood language support because the language of the neighborhood domain is not the same as that of both parents' B1. Each parent speaks a different minority language (v) Strategy 5. Non-Native Parents. One of the parents always uses a different language from their B1. Parents have the same B1. The language in the neighborhood domain is not the same as the parents' B1. (vi) Strategy 6. Mixed Language. Parents used code-mixing. Parents are bilingual, and the language in the neighborhood domain is mixed since the community is also bilingual.

Language and gender research beginning in medieval times suggest that not only do women tend to use more standardized and polite forms than men (Coates, 1986), but Gillieron's research (French genre), corroborated by Pop (1950), also states that women's language is more innovative than men's, thus subverting the traditional dialectological and folk linguistic opinion that women are conservative (Coates, 2013). Their innovativeness in using a language gives rise to language change. Another source of variation that might lead to linguistic change is the differences in speaking patterns between men and women. Occasionally, it is women who are the innovators, and occasionally males. While males are more likely to bring about changes to vernacular norms, women are often linked to shifts towards both status and these norms (Holmes, 2013).

Research on *Usada Bali* has been conducted by Eiseman (2001), who identified a lexicon relating to (i) plants for medicinal medicine, (ii) types of diseases in Bali diseases and sickness, especially in Jimbaran, (iii) local *balian* [paramedics], (iv) types of ailments treated by traditional medicines, (v) equipment for making traditional medicines equipment, (vi) types of paraphernalia for conducting traditional medicine. (vii) types of medicinal plants and other materials used, (viii) types of traditional formulations, and (ix) descriptions of plant parts used as medicine. The research to be conducted emphasizes the understanding of the *Usada Bali* lexicon by elementary school children and their parents. Therefore, this research is beneficial because identifying the lexicon presented is used as question material in the questionnaire given to elementary school students.

Mu'jizah (2016) wrote an article entitled Usada Manuscripts as Local Wisdom of The Balinese People. The practice of *usada*, or Balinese traditional healing, has a long history in Bali and is still practiced today. This is evidenced by the numerous manuscripts known as lontar *usada*, which are written in palm leaf using Balinese language and script. The purpose of this article was to research *usada* treatment and understand the type and system of Balinese medical knowledge as expressed in *usada* Bali. Data was collected through observation and qualitative methods with inventory, description, and content analysis. Data was gathered through observation and qualitative methods with identification, description, and study of contents. The primary data was taken from the collections of *lontar usada* in the Faculty of Letters of Udayana University Bali, and Gedong Kirtya. The result of this study obtained some important items. First, the Balinese as the owner of a tradition continue to maintain Bali *usada*, both the manuscripts and science, as a prosperity of local knowledge. Second, there are many types of *usada*

treatment depending on the kind of sickness involved. Third, treatment for diseases suffered by adults and children, including care for expectant mothers and delivery, was provided by the United States. As a result of the traditional treatments' reliance on plants, animals, and spells, *usada* has come to be seen as the go-to source for Balinese people seeking to preserve their health. This study is relevant to my study in the way how to acknowledge the *lontar usada.* One point that makes it different from this study is this study just obtained the content of the manuscript regarding the type and treatment done to sickness, whereas this study focused on students' proficiency related to the lexicon of *Usada Bali.*

The following research was done by Sutjiati Beratha et al., (2019), who researched medicinal plants as beauty ingredients in *Lontar Indrani Sastra*. The research presented the teachings of Indrani Sastra in Old Javanese literary works, the knowledge system of beauty recipes in Indrani Sastra, and the lexicon of plants for beauty care. This research takes plants as ingredients for beauty, while the research to be carried out also uses plants as traditional medicine ingredients to cure diseases. However, this study is conducted to determine the distribution of respondents' understanding of the lexicon and the language choices reflected in the strategies used by parents in transferring language to children.

Based on the background, this study examines the understanding of *Usada Bali* lexicon among elementary students in Bali. It addresses three main issues: (1) the strategies used by parents of 5th and 6th graders, (2) the distribution of students' understanding of the *Usada Bali* lexicon, and (3) the factors influencing students' proficiency in this lexicon. The study aims to identify the language strategies used by parents, analyze students' understanding of medical-related lexicons, and determine the factors affecting their proficiency. The research is urgent to prevent the shift from Balinese (B1-BL) to other languages like Indonesian (I.L.) or English in communication.

2. Method

This study uses a mixed-method research design that applies qualitative strategies and models. Qualitative strategies refer to parallel stages in the qualitative and quantitative data collection, evaluate each phase separately, and include discoveries when interpreting the results. Qualitative models provide frameworks for integrating qualitative data within a mixed-methods study. For example, in addressing language and gender study by applying Sociolinguistics theory (Creswell, 2009). Respondents in this study were students of fifth and sixth-grade students of *Sekolah Dasar Negeri No 1* and *No 3* [Public Elementary School No 1, and No 3]' at Canggu Village, South Kuta Sub-District in Denpasar City, *Sekolah Dasar Negeri* [Public Elementary School] at Nyangelan Village, and *Sekolah Dasar Negeri No 2* [Public Elementary School No 2] at Timuhun Village, Banjarangkan Sub-Distric in Klungkung City, totaling 230 students. Canggu village, located in South Kuta Denpasar city, is more heterogeneous than Nyanglan and Timuhun village, about 6 km from Klungkung city. They are homogenous areas. The study was done in May and June 2023. The primary data in this research is the data related to the student's language choice in the family, school, and neighborhood domains. The data was collected by documentation method supported by the questionnaire that consists of some questions about metadata, the language used at home and in the neighborhood activity, and the language used by the student's parents as well assisted by note-taking technique. The secondary data about lexicons that are related to medicine types, medical treatment, and medical problems of *Usada Bali* was taken from lexicons as identified by Eiseman (2001). Data were analyzed qualitatively using theories relevant to the research problem and supported by quantitative analysis using simple statistics. The first problem analyzed by Romaine's theory of Bilingualism especially language strategy in transferring a language to their children. Language choice by students to communicate is analyzed using Fishman's theory which proposes the domain of language choice. By integrating qualitative and quantitative data analysis the factors that influence the students' proficiency can be interpreted.

3. Result

The findings of the research on the strategy of students' parents in transmitting a language, the student's language choice in communication, and the student's comprehension of the traditional medicine types, medical treatment, medical problems, and factors that influence the student's proficiency of *Usada Bali lexicons* will be presented in the following subchapter.

3.1 The strategy of students' parents in transmitting a language

Parents' strategy in transferring language to their children is seen in the language mothers and fathers use to their children in everyday life. This strategy affects the language used by children when communicating with parents, friends, and people around them. Romaine formulated six (6) strategies for parents in transferring language to children (Romaine, 1995). However, in this study, only strategy number (6) was applied by the student's parents in Denpasar and Klungkung regions. In this study, Strategy 6 is the only strategy that fulfills Romaine's criteria of strategies related to parents' mother tongue, the dominant language in the neighborhood domain, and the language used with their children, and formulated based on different family language policies. Three are (3) other strategies were formulated based on the findings to support Romaine's formulations. Three new strategies were created based on the findings. Some parents use their B1 for their children's language which is the same as that in the neighborhood domain, and some others use a different language with their B1 and that the language in the neighborhood domain. They are called strategy 7, strategy 8, and strategy 9. The strategies are formulated as the following.

1) Strategy (6), as formulated by Romaine, was applied by the father and mother using BL-IL code-mixing. Both mother and father are bilinguals, B.L. and I.L. The language in the neighborhood domain is B.L. and I.L. in the sense that the community is bilingual. Both the students' mother and father use BL-IL code-mixing.
2) Strategy (7), parents use their B1-BL. Both mother and father have the same B1-BL. The language in the neighborhood domain is the same as the parents' B1-BL. Parents use their B1 (B.L.) with their children.
3) Strategy (8), i.e., parents use I.L. with the students. Both mother and father have the same B1-BL. The language in the neighborhood domain is I.L., and parents use I.L. with the students.
4) Strategy (9), parents use I.L. Both mother and father have the same B1-BL. The language in the neighborhood domain is their parents' B1-BL. However, parents use I.L.- a language that is not the same as the neighborhood domain language.

The percentage of parents' strategies in Denpasar and Klungkung in transferring language to their children can be seen in **Figure 1** below.

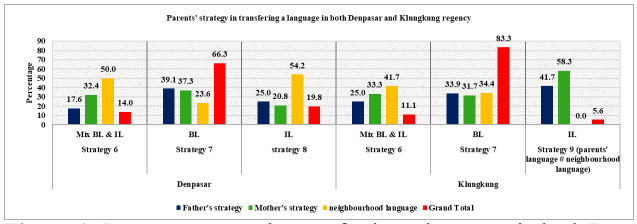

Figure 1. Parents' strategy in transferring a language in both Denpasar and Klungkung Regency.

Figure 1 shows data related to the different strategies used by fathers and mothers and the language in the neighborhood domain that influences children's language learning in two different regions, Denpasar and Klungkung. In Denpasar, fathers and mothers use strategy 6, strategy 7, and strategy 8. Strategy 7 is the most frequently used (66.3%) compared to strategy 6 (14.0%) and strategy 8 (19.8%) by the parents. Strategy 7 shows the percentage of fathers (39.1%) and mothers (37.3%). For strategy 6, the percentage of fathers (17.6%) and mothers (32.4%), while in strategy 8, the percentage of fathers (10%) and mothers (8%). In Klungkung, fathers and mothers used Strategy 6, strategy 7, and strategy 9. Strategy 7 had the highest percentage (83.3%) compared to Strategy 6 (11.1%) and Strategy 9 (5.6%). Fathers (33.9%) and mothers (31.7%) used strategy 7. Strategy 6 (25%) was chosen by fathers and (33.3%) by mothers. Meanwhile, fathers (9.41%) and mothers (58.3%) chose strategy 9.

Based on the result presented in **Figure 1**, it is clear that in both regions-Denpasar and Klungkung, strategy 7 was the most frequently used by the student's parents. In this strategy, both fathers and mothers have the same B1-BL, and they employ their B1-BL to their children. Demography of the Canggu area, which is more heterogeneous than the Timuhun and Nyanglan areas, does not influence the parents' language who still use their B1-BL to their children, even though the percentage shows that fathers use B.L. more frequently than mothers do. The contrastive result was found when applying strategy 9. Parents only use it in the Timuhun and Nyanglan areas, which are more homogeneous than the Canggu-Kuta areas. Both students' fathers and mothers used I.L. with them even though the language in the neighborhood domain is B.L. The percentage shows that mothers use this strategy more frequently than fathers do.

The result implied that demography and gender do not

significantly influence language use. It can be concluded that both parents in those regencies have a positive attitude by maintaining their B1_BL for their children (through applying strategy 7), even though parents in Klungkung city-Nyanglan and Timuhun areas use I.L. for their children. However, the percentage of strategy 9 is the lowest than the others.

3.2 The students' language choice in communication

Figure 2 below displays the language choice by students in two locations, Denpasar-Canggu, North Kuta subdistrict, and Klungkung-Timuhun and Nyanglan village, Banjarangkan sub-district, when communicating with people around them, such as father, mother, siblings, and friends.

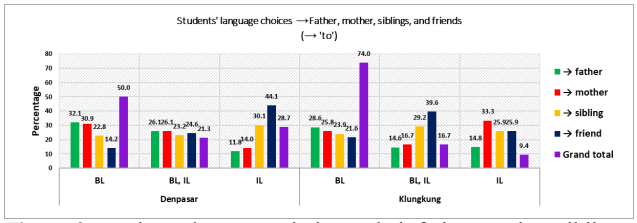

Figure 2. Students' language choice to their father, mother, siblings, and friends.

The total responses to using B.L. by students is 162, BL-IL code-mixing is 69, and the response to using IL is 85. In the Denpasar area, there are 52 students (32.1%) use B.L., 18 students (26.1%) use BL-IL code-mixing, and 11 students (11.8.%) use I.L. to their fathers. The choice indicates a greater preference for using B.L. over other languages to their father. There are 50 students (30.9%) who use B.L. with their mothers, 18 students (26.1%) who use BL-IL code-mixing, and 13 students (14.0%) who use I.L. with their mothers. It also shows a greater preference for B.L. in this context. There is a greater preference for using I.L. among other languages when communicating with siblings, as given in Figure 2. There are 37 students (22.8%) who used B.L., 16 students (23.2%) used BL-IL code-mixing, and 26 students (30.6%) used I.L. to their siblings. When communicating with friends, there are 23 students (14.2%) who use BL, 17 students (24.6%) who use BL-IL code-mixing, and 41 students (44.1%) who use I.L. In this context, I.L. has a higher percentage than B.L.

In the Klungkung region, there are 61 students (28.6%) who use B.L. when communicating with their fathers, 7 students (14.6%) who use BL-IL code-mixing, and 4 students (14.8%) who use I.L. with their fathers. The percentage of using B.L. with their fathers in Klungkung is higher than that in other languages. When communicating with their mothers, 55 students (25.8%) use B.L., 8 students (16.7%) use BL-IL code-mixing, and 9 students (33.3%) use I.L. with their mothers. When they communicate with their siblings, there are 51 students (23.9%) use B.L. with their siblings, 14 students (29.2%) use BL-IL code-mixing, and 7 students (25.9%) use I.L. when communicating with their siblings. The use of BL-IL code-mixing has a higher percentage than in other languages. In the language choice with their friends (21.6%), the students use B.L., 19 students (39.6%) use BL-IL code-mixing, and 7 students (25.9%) use I.L. In this context, they greatly prefer using BL-IL code-mixing when communicating with their friends.

Cumulatively, the result shows that the preference for using B.L. is higher than in other languages in Denpasar, especially in conversations with the father and mother. However, IL tends to be used in conversations with siblings and friends. These varying trends, especially the higher use of B.L. than other languages, are also determined by the strategies of students' parents, who tend to use B.L. by applying strategy 7 to them. In the Klungkung Regency, B.L. is used to communicate with the father. In contrast, I.L. is used to communicate with the mother, siblings, and friends. It is the impact of Strategy 9. Then Demographic area does not influence the language choice. When we ignore the participants, B.L. gets the highest percentage among BL-IL code-mixing and I.L.(see **Figure 2**).

3.3 Students' comprehension of *Usada Bali* lexicon

The understanding regarding the *Usada Bali* lexicon by elementary school students in Klungkung and Denpasar is focused on the lexicon of medical types, medical treatment, and medical problems/ailments. *Usada Bali,* as a system of traditional medicine and part of the Balinese oral tradition, has a device that is used to package the treatment system, namely language, which is realized in the form of a B.L. lexicon. This traditional Balinese medicine system includes types of medicine, modes or ways of medical treatment, medical problems/ailments, and tree parts or plant names. This study focused on medicine types, modes of medical treatments, and medical problems/ailments.

Students' understanding of the lexicon of medicine types

Eiseman (2001) stated that there are 113 separate traditional medicine mixtures. They are divided into three items based on their use, types, and names. There are 12 medicine types in *Usada Bali*. Each has its name based on the ingredients taken from plants generally used as medicine. In this study, only 8 types among 12 types were taken as samples, and the students were asked whether they knew it. They are more familiar types than the other ones. The items of the types can be seen in **Table 1** below.

These lexicons are categorized as nouns. Each medicine lexicon has a name that varies according to the tree's name or part of the tree used as medicine. The name of each type of medicine is used to treat diseases according to the properties of the tree used as medicine. For example, *loloh don nyambu biji* [herbal of the guava tree leaves] is mixed with roasted onion and salt, is a diarrhea medicine because guava leaves are believed from generation to generation to be effective in treating diarrhea.

The way to make traditional Balinese medicine is by squeezing the medicinal ingredients and enough water by hand, grinding the medicinal ingredients on a batu boreh, *a* particular stone for making traditional medicine in Bali, and chewing. Each of the medicine types is discussed in the following sections (Eiseman, 2001).

1) *Loloh*

Loloh is any traditional medicine that is taken internally. In Bali, it is traditionally described and naturally produced with occurring materials as medication (Eiseman, 2001). *Loloh don kumis kucing* [the leaves of the *orthosiphon* aristatu], and *Loloh kunyit* [turmeric *Zingiberaceae*] are famous in Bali. *Loloh don kumis kucing* is made of *mashed orthosiphon Aristatus leaves;* hot water is added, strained, let cool, and then drank as much as possible. Patients with urinary issues consume it (Eiseman, 2001). Loloh kunyit is quite famous among others. The *Loloh* is still consumed nowadays since it is believed to relieve sore throat. It is made of turmeric *Zingiberaceae,* tamarin/lime, and salt. The ingredients are mashed on *a batu boreh* or juiced in a mixer, strained, and then drunk.

2) *Simbuh*

Simbuh is made by chewing some ingredients in the mouth. *Simbuh don base* [betel leaf] and *simbuh baas cekuh* are frequently applied to sick patients in Bali. The ingredient of *Simbuh don base* is *don base* mixed with *isén* [*Alpinia galanga*] and salt. The *base* and *isén* are generally planted in the house compounds, making it easier for the family to find when needed. This *Simbuh* is produced by slicing the *isén* into small pieces and chewing with the betel leaf and salt until very fine. Then, spray the chewed materials from the mouth onto the stomach. Family members and the balian-traditional medicine practitioner can apply this *simbuh.*

3) *Boreh*

Boreh is an external medicine and one of the most common traditional medicines, usually applied on the feet and legs. It is never used on the stomach and waist. A typical one that is still applied nowadays is *boreh jaé.* The ingredients are *jaé* [ginger rhizome] sliced into small pieces and salt. The method to make the *boréh* is grinding it on a *batu boréh*. *Batu* [stone], and *boréh* is a traditional medicine mixture that is applied externally. *Batu boréh* is a tool used to grind the materials. After grinding until it is fine, apply as a poultice to the forehead. But it is sometimes applied to the ankle (Eiseman, 2001).

Another *boréh is* popular for older people to warm their bodies is *boréh baas cekuh.* The ingredients are *baas mes* [uncooked white rice, which is softened by soaking in water], *cekuh* [*lesser galangal*], which is sliced into small pieces, *bawang metambus* [Balinese onion heated a bit] to soften, and *adas* [fennel seed] which is available in the market. *Batu boréh* is used to grind the prepared ingredients until fine, then applied as a poultice to the patient's leg or feet.

4) *Tutuh*

Tutuh is drip medicine into the eye or nose that can be directly applied. The medicine is sometimes taken from the surroundings to medicate the wound. A common plant is a frangipani tree that exudes a milky latex when a leaf is pulled out, then allows the latex to drip directly onto the wound. Sometimes *tutuh* can be dripped into the eye or nose. It is not a common procedure and is generally done by *balian* [traditional medical practitioner] (Eiseman, 2001).

5) *Lengis*

Lengis in Bali is known as *Lengis bali or lengis nyuh* [*coconut* oil] which is traditionally made of coconut. This *lengis* is used as medicine and is generally called *ubad* [medicine] in Balinese *society* (Eiseman, 2001). One of the most popular is *ubad lengis bawang.* The ingredients

Table 1. Lexicon of medicine type.

Medicine types
1. *Loloh* 'herbal drink'
2. *Simbuh* 'spraying the chewed medicine from the mouth'
3. *Boreh* 'external medicine, which is generally thickly polished on the leg and foot'
4. *Tutuh* 'drip medicine into the eye or nose'
5. *Lengis* 'coconut oil'
6. *Ubad* 'any traditional medicine'
7. *Salep* 'salve'
8. *Uwap* 'mixture substance polished on the abdomen, leg, and hand as a poultice'

Taken from Eiseman (2001).

are *bawang metambus* [roasted onion], and Balinese onion softened over a fire by heating. Squeeze the softened onion and mix it with coconut oil, then apply it to bite to relieve the itch.

6) *Ubad*

Ubad generally refers to any kind of medicine. But the word *ubad* is used to specify medicine, for example, *ubad don kemenuh* [jasmine leaf]. Kemenuh [jasmine *jaminum sambac*] is generally planted in many house compounds. The ingredients of *ubad don kemenuh* are jasmine leaf and Balinese onion which are ground on batu boreh and then applied on the temples-the flat area at each side of the upper part of the face. This *ubad* is used to cure a child with a runny nose (Eiseman, 2001).

7) *Salep*

Salep is a kind of ointment that is used to promote skin healing. The *salep* is applied on the blister of the feet (Eiseman, 2001). The name of the *salep* is *salep engket kaliki.* The ingredients are saliva and *enket kaliki* [the milky latex exuded when a leaf is pulled out of a kaliki plant].

8) *Uwap*

Uwap traditional medicine is applied to the body over the stomach or around the waist as a poultice to cool it. One of the examples is *uwap don dadap*. *Don dadap* [coral tree leaf] *Erythrina poeppigiana,* as the ingredient with *baas mes* [soaked rice], Balinese onion, and *adas* [fennel seed].The method to make the *uwap* is grinding all substances on batu boreh, adding water, and then applying it to the stomach and/or waist (Eiseman, 2001).

Through a questionnaire, students were asked about their knowledge of the lexicon of the types of *Usada Bali* by answering "Yes" if they knew and "No" if they did not know the lexicon. They were further asked about the source of their knowledge, whether it was from their father, mother, teacher, friend, or grandmother. The percentage of students' understanding of medicine type from Denpasar and Klungkung can be seen in **Figure 3** below.

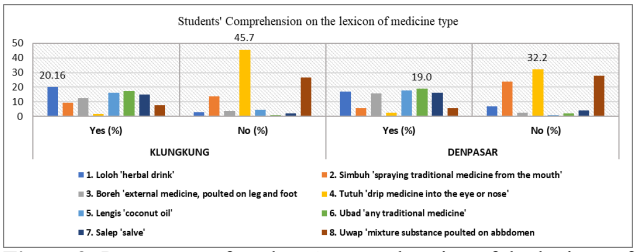

Figure 3. Percentage of students' comprehension of the lexicon of medicine types in Usada Bali.

Figure 3 shows that *loloh* was the lexicon most mastered by students in Klungkung (20.2%). While in Denpasar, *ubad* is the most mastered lexicon (19%). Students in both regions lacked an understanding of *tutuh*, evidenced by the highest percentage in Klungkung (45.7%) and Denpasar (32.3%). Nowadays, *tutuh medicine i*s rarely practised except by traditional practitioners or *balian*. Tutuh is a traditional medicinal liquid that is dripped through the nose, must be inhaled by the patient, and sometimes applied to the eyes.

Students' understanding of these traditional medicine-type lexicons is generally higher in Klungkung than in Denpasar. It can be seen from the higher percentage of "Yes" and the lower percentage of "No" in some lexicons in Klungkung. The cumulative understanding can be seen in **Figure 4** below.

Figure 4 shows that cumulatively students' understanding of the lexicon of medicine type in Klungkung (81.9%) is higher than in Denpasar (76.1%). The result means that the lexicons are popular among the students in Denpasar and Klungkung. Sources of information influencing students' understanding of the lexicon of traditional medicine types contained in *Usada Bali* are fathers, mothers, teachers,

friends, and grandmothers, as shown in **Figure 5** below.

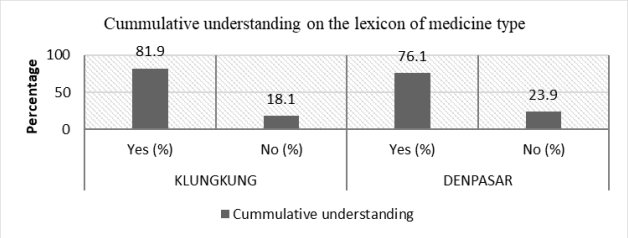

Figure 4. Percentage of cumulative understanding of medicine type.

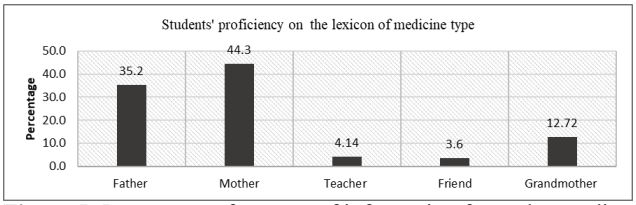

Figure 5. Percentage of sources of information for understanding the medicine type lexicon.

The highest percentage of student's mastery of the lexicon of traditional medicine types in both Denpasar and Klungkung Regions, which is given in **Figure 5**, is obtained from mothers (44.3%), fathers (35.2%), and grandmothers (12.7%), in addition to teachers and friends. Their understanding of the lexicon of Balinese traditional medicine is inseparable from the role of their parents (father and mother) strategy in transferring a language, teachers, friends, and grandmothers (see **Figure 5**).

Students' understanding of the lexicon of medical treatment in Usada Bali

Medical treatment in *Usada Bali* is the way how to cure the patient. There are 10 ways how to apply traditional medicine to the patient. The lexicon of traditional medical treatment can be seen in **Table 2**.

Figure 6 below draws the student's comprehension of the medical treatment lexicon based on their "Yes" and "No" answers. A "Yes" answer is given if the student comprehends the lexicon being asked, and when they do not understand the lexicon, they will answer with "No".

As shown in **Figure 6**, the students in Denpasar understand the *maloloh* lexicon best (18.1%). The least understood lexicons are *matutuh* and *madudus* (each of which is 15.66%). Other lexicons are understood with different percentages. In the Klungkung region, the *melukat* lexicon is best understood by students (17.1%), while the least understood lexicon is *matutuh* (24.6%). The way how to have *Matutuh* treatment is inhaled by the patient and sometimes applied to the eyes.

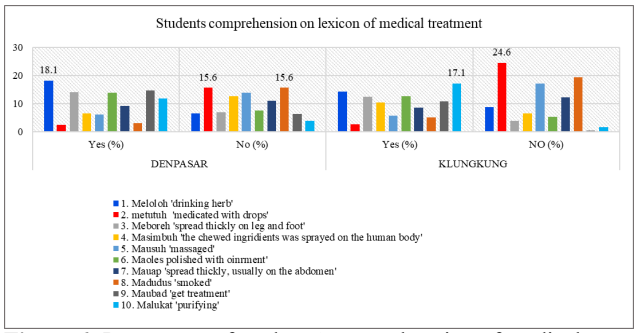

Figure 6. Percentage of students' comprehension of medical treatment lexicon.

In general, the cumulative understanding of these traditional medical treatment lexicons by students in Klungkung is higher than in Denpasar. It can be seen from the higher percentage of "Yes" and the lower percentage of "No" in some lexicons in Klungkung. The cumulative understanding can be seen in **Figure 7** below.

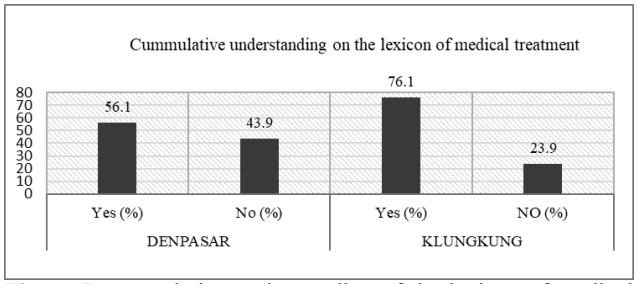

Figure 7. Cumulative understanding of the lexicon of medical treatment.

Cumulatively, the student's proficiency regarding the medical treatment lexicon in Klungkung (76.1%) is higher than that in Denpoasar (56.1)%. The sources of understanding of the lexicon are parents (father and mother), teachers, friends, and grandmothers, as illustrated in **Figure 8** below.

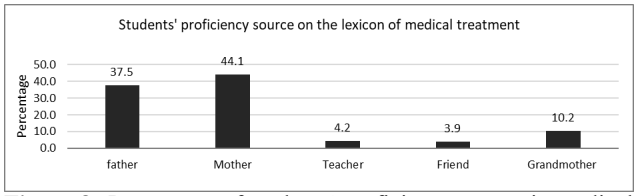

Figure 8. Percentage of students' proficiency source in medical treatment lexicon.

Figure 8 shows that the overall mastery of the lexicon of traditional medical treatment in *Usada Bali* by students

Table 2. Medical Treatment Lexicon.

Medical treatment lexicon
1. Maloloh ‘drinking herb’
2. Matutuh ‘medicated with drops traditional medicine’
3. Maboreh ‘spread thickly the poultice on leg and foot’
4. Masimbuh ‘to spray the chewed ingredients on the human body’
5. Mausuh ‘the body massaged’
6. Maoles ‘polished with ointment’
7. Mauap ‘spread thickly with a poultice, usually on the abdomen’
8. Madudus ‘smoked by traditional medicine ingredients’
9. Maubad ‘have any kind of medicine to release pain’
10. Malukat ‘purifying the soul and body’

in both Denpasar and Klungkung regions is taken from their parents. The highest source is obtained from their mother (44.1%), father (37.5%), and grandmother (10.2%), as well as from their teachers and friends. Cumulatively, students in both Denpasar and Klungkung regions (65.5%) understood the lexicon of medical treatment, and (34.5%) did not understand the lexicon.

Students’ understanding of medical problems/ailments treated by Usada Bali

There are 36 lexicons on medical problems in *Usada Bali* that are elaborated on by Eiseman (2001) and answered by the students. They are the most frequent symptoms generally experienced by society in Bali. **Figure 9** below presents the highest percentage of students’ comprehension of the lexicon of medical problems based on their “Yes” and “No” answers.

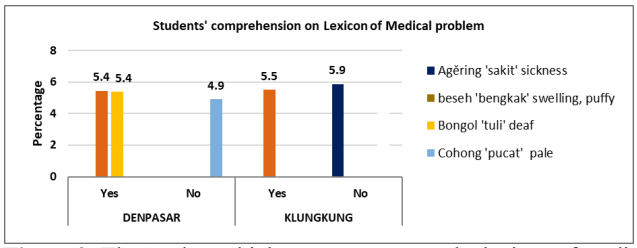

Figure 9. The Students’ highest percentage on the lexicon of medical problem.

In Denpasar, as shown in **Figure 9**, the most understood medical problem symptom lexicons by students are *bongol*, *beseh*, and puffy (each of which is 5.4%). The least understood lexicon, indicated by the answer “No”, which means not knowing the lexicon in question, is the lexicon *cohong* (4.9%). In Klungkung, the most understood lexicon is *beseh*, puffy (5.5%), and the least known lexicon is *agering* (5.9%).

In general, the cumulative understanding of these medical problems/ailment lexicons by students in Klungkung is higher than that in Denpasar. It is shown in **Figure 10**, that the total comprehension of students in the Denpasar region (59.2%) who answered “Yes” which means they understood or knew the symptoms of the medical problem asked, and 40.8% did not know the lexicon asked. In the Klungkung region, (66%) knew the lexicon of the symptoms of the disease asked by answering ‘yes’, while the answer “No” (34%) meant not knowing the symptoms of the disease asked. It can be seen from the higher percentage of “Yes” and the lower percentage of “No” in some lexicons in Klungkung. The cumulative understanding can be seen in **Figure 10** below.

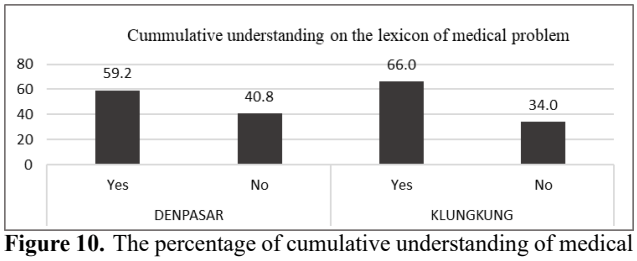

Figure 10. The percentage of cumulative understanding of medical problems.

Figure 10 presents the students’ cumulative understanding of the medical problem lexicon in two locations, Denpasar and Klungkung. In Denpasar, 59.2% of students understand the lexicons, while 40.8% do not. In Klungkung, 66.0% understand the lexicon of medical problems, and 34.0% do not.

Data on elementary school students’ proficiency sources for the various types of Balinese traditional medical problems are shown in **Figure 11** below. The sources are categorized as father, mother, teacher, friend, and grandmother.

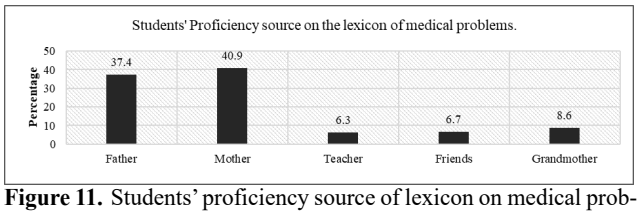

Figure 11. Students' proficiency source of lexicon on medical problems in *Usada Bali*.

This understanding can be explained through **Figure 11** that cumulatively, students in Denpasar and Klungkung received information related to the lexicon of medical problems that can be treated by traditional medicine from their father (37.4%), mother (40.9%), teacher (6.3%), friend (6.7%), and grandmother (8.6%).

In this context, the father and mother play an important role in language maintenance through the strategies used in the family. In this case, both father and mother tend to use B.L., which impacts understanding in a quite high percentage (**Figure 11**). In addition, the grandmother's role is also very important in the student's family, as it provides information about the symptoms of diseases in B.L. that students do not know. These results indicate the preservation and maintenance of the language of three generations (grandmothers, parents, and children) through language use in the family.

4. Conclusions

The result of the analysis formulated 4 strategies for transferring a language by the student's parents, they are Strategy 6, Strategy 7, Strategy 8, and Strategy 9. Among the strategies, Strategy 7 is the most dominantly applied by the parents in Denpasar and Klungkung Regencies. Both parents used their B1-BL to their children.

Most elementary school students in both Denpasar and Klungkung Regencies understand the lexicons of traditional medicine types, medical treatment, and medical problems. This is proved in the following comparisons and reaches a higher number of 'Yes' answers than 'No' answers. The comparison between 'Yes' [means understand the lexicon] and 'No' [means do not understand the lexicon] answers to medicine-type questions in Klungkung is 4.5:1, and in Denpasar is 3.2:1. The comparison between 'Yes' and 'No' answers to medical treatment lexicon is 1.3:1, and in Klungkung is 3.2:1. The comparison between 'Yes' and 'No' answers to medical problems lexicon in Denpasar is 5:1, and Klungkung is 1.9;1.

The factors that influence the students' understanding of the B.L., especially the Balinese traditional medicine lexicon in both Denpasar and Klungkung Regency, are their parents' strategies who dominantly employed strategy 7. Additionally, the grandmother's role is also very important in the student's family, as she provides information about the B.L. lexicon related to *Usada Bali* that students do not know.

This study implied that:

(i) The demography of Denpasar which is a heterogenous situation and Klungkung a homogenous situation do not significantly influence the language choice to communicate. This is proved by the use of Strategy 7 and the use of BL is still higher than IL in both Regencies. This result contradicts Holmes (2001). It is said that the minority language can be maintained when the family of a minority group lives near each other.

(ii) B.L. still exists in the family and neighborhood domain, as well as at school. Communication in three-generation participant networks in the students' surroundings, parents-mothers and fathers, and students themselves, besides their teachers and friends, can be said to be a generation with a positive attitude towards B.L. They are aware of using B.L. including *Usada Bali* lexicon as part of oral tradition and Balinese culture, which needs to be maintained and transferred. It gives them a social identity as part of Balinese society. It reflects the values of local wisdom of Balinese culture.

(iii) The result is not only different from what mentioned by traditional grammarians (Coate, 2004)-women are more innovative than men by leaving their native tongue and choosing another language when communicating, but it also does not support the claim that women's language tends to bring about language change due to their innovativeness (Holmes, 2014).

These statements are proved by the result regarding the language strategy applied by the parents who tend to employ strategy 7-use BL to the students. This means that the mother and father use BL even reach the highest percentage among other languages, mixed languages, and use IL in different percentages.

Author Contributions

The first author designed the research, created the research instruments, analyzed the data, and finalized the manuscript. The second author conducted field research and wrote the manuscript draft.

Conflict of Interest

On behalf of all authors, the corresponding author states that there is no conflict of interest.

Data Availability Statement

Data gathered and kept by authors.

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